

Appendix A

Common Conversion Factors

Mass

1 kilogram	=	10^3 grams	=	2.20462 pounds
1 megagram (metric ton)	=	10^6 grams	=	2,204.62 pounds
1 gigagram	=	10^9	=	1,000 metric tons
1 teragram	=	10^{12}	=	1 million metric tons
1 short ton	=	.9072 * 10^6 grams	=	2,000 pounds

Energy

1 joule	=	.2388 calories	=	.0009478 Btu
1 terajoule	=	10^{12} joules	=	$9.478 * 10^8$ Btu
1 exajoule	=	10^{18} joules	=	$0.9478 * 10^{15}$ Btu
1 Mbtu	=	1000 Btu	=	$1 * 10^3$ Btu
1 Mmbtu	=	1 million Btu	=	$1 * 10^6$ Btu
1 Bbtu	=	1 billion Btu	=	$1 * 10^9$ Btu
1 Tbtu	=	1 trillion Btu	=	$1 * 10^{12}$ Btu
1 Qbtu	=	1 quadrillion Btu	=	$1 * 10^{15}$ Btu

Area

1 acre	=	0.4047 hectare (ha)	=	$4,407 \text{ m}^2$
1 hectare	=	$10,000\text{m}^2$	=	2.47 acres

Volume

1 cubic centimeter	=	$3.5318 * 10^{-5}$ cubic feet
1 cubic foot	=	0.02832 cubic meters
1 cubic meter	=	35.3147 cubic feet
1 barrel	=	42 gallons

Density

1 thousand cubic feet methane	=	42.28 pounds methane
1 thousand cubic feet carbon dioxide	=	115.97 pounds carbon dioxide